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DEPARTMENT OF NATURAL RESOURCES

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Division Director

July 19, 2016

Karin Madsen, Resident Agent
West Ridge Resources, Inc.
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: 2015 Annual Report Review Completion, West Ridge Mine, C/007/0041, Task ID #5106

Dear Ms. Madsen:

The Division staff has completed the review of the 2015 Annual Report. Enclosed is a copy of the review with each reviewer's comments.

The Annual Report did not include any 2015 subsidence reports as detailed in the West Ridge MRP Volume 2, Chapter 5, pages 5-23 thru 5-26. The four reports included in the annual report are the same as included in the 2014 annual report. Please submit 2015 survey data, subsidence map and summary report by no later than August 19, 2016.

Thank you for your diligence in completing the Annual Report. If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Coal Program Manager

DRH/sqs
Enclosure
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Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name Mine Name Permit Number Permit expiration Date Operator Name Phone Number Mailing Address Email City State Zip Code

DOGM File Location or Annual Report Location

Excess Spoil Piles

- ☐
- Required
-
- ☒
- Not Required

Refuse Piles

- ☐
- Required
-
- ☒
- Not Required

Impoundments

- ☒
- Required
-
- ☐
- Not Required

Sediment Pond Annual Certification included.

Other:

OPERATOR COMMENTS

REVIEWER COMMENTS

☒ Met Requirements ☐ Did Not meet Requirements

The Permittee submitted an Impoundment Inspection and Certified Report with the 2015 Annual Report. The primary West Ridge impoundment was inspected on November 19th, 2015. No evidence of instability, structural weakness or other hazardous conditions were noted in the report. Sediment levels were reported below the 60% clean-out elevation for both Cell A (upper) and Cell B (lower). Cell A's accumulated sediment elevation is approximately 6' below the clean-out elevation (6,936.4' vs 6,942.8' respectively). Cell B's accumulated sediment elevation is approximately 2.7' below the clean-out elevation (6,926.1' vs 6,928.8' respectively). skc-June 28th, 2016.

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

Title: EXPERIMENTAL FIELD TRIALS

Objective: Monitoring to support proposed experimental practice. Provide a comparison of growth on field trials with Douglas/Fir reference area.

Frequency: Annual evaluation in June

Status: Ongoing

Reports: Provide in annual report

Citation: MRP, Volume 1, Appendix 2-6 and Volume A, Map 2-4

Operator Comments

The required Vegetation Monitoring at the Experimental Test Plot was prepared by mt. Nebo Scientific, and is included.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

4/22/16, LR: The "Vegetation Monitoring at the Experiments Test Plot" report was provided and revealed conditions are about the same as they have been in the previous years. The continuation of this study provides little value since the experiment of cut/fill over the existing top soil has occurred and the site has stabilized. The operator may elect to discontinue this study at their request.

Title: SOIL SAMPLING OF FILL AT T1, T2 AND T3

Objective: To protect buried substitute topsoil in the fill. Collect a composite sample from several locations near each site to obtain a more average value.

Frequency: Annual evaluation during field season.

Status: Ongoing beginning in 2010.

Reports: Annual report

Citation: MRP, Volume 1, Appendix 2-6 addendum, pg. 3 and Volume A, Map 2-4

Operator Comments

The Soil Sampling of Fill at T1, T2, and T3 were prepared by Mt. Nebo Scientific, and is included.

Reviewer Comments ☒ Met Requirements

☐ Did Not Meet Requirements

7/18/16, PWB: Soil sampling of T1 and T3 was conducted. T2 was inaccessible, underneath 50 feet of coal. An effort has been made to return to the same locations each year. This is not always possible, as detailed in the report. The mean and standard deviation for each parameter over time at each location is provided in Table 1. This table is very revealing. It demonstrates that the pH varies little within a sample area and varies little between sample areas. The overall standard deviation varies little from the one provided on Table 2, Experimental Test Plot.

The table also demonstrates that the measurement of CaCO₃ is variable within sites, probably due in part to the varying sample locations. However, the CaCO₃ percentage is even more variable between sites, with T2 having the lowest CaCO₃ content and T1 and T3 having similar CaCO₃ values. Measurement of CaCO₃ at the Experimental Test Plot (Table 2) was also accompanied by a large standard of deviation, which suggests the variability in analysis of CaCO₃ is expected with the analytical procedure.

The mean values for EC at locations T1 (4.63 dS/m) and T3 (6.91 dS/m) have a large standard of deviation. The variation in EC is attributed to road salting at T3. Elevated EC at T1 in 2001 and 2009 was likely due to the same reason. The mean EC over time for T2 is 2.70 dS/m. T2 is out of the traffic pattern and is not affected by road salt. It is adjacent to the coal pile and as the analysis indicates, EC measurement has remained relatively constant, with a standard deviation of 1.12 at location T2.

For T1, the mean SAR value over time is 2.01, with a standard deviation is 1.69. The mean SAR value at T3 over time is 8.99 which has a HUGE standard deviation of 10.35. (In 2015, the T3 SAR was 5.10, up from the previous year.) Both T1 and T3 locations should be monitored after final grading for EC and SAR.

One conclusion that is very clear: the operator should seek a salt substitute for treating roads in winter.

Title: SUBSIDENCE MONITORING

Objective: To monitor subsidence from longwall mining practices. Subsidence monitoring of panels until the effects of mining have stabilized and vertical movement is less than six inches per year.

Frequency: annual

Status: Ongoing

Reports: annual report

Citation: MRP, Volume 2, Chapter 5, page 5-23b to 5-23e

Operator Comments

Subsidence Monitoring information is included.

Reviewer Comments ☐ Met Requirements

☒ Did Not Meet Requirements

The Permittee failed to include any 2015 annual subsidence reports. The four reports included in the annual report are the same from the 2014 Annual report. The Permittee has not addressed the requirements of this commitment as detailed within the West Ridge MRP Volume 2 Chapter 5 page 5-23 through 5-26 by not including an annual 2015 survey data, subsidence map or summary report.

The MRP details that a photogrammetric subsidence readings will be contoured into a map to depict the net change in elevation of the area within the Permit Area. The MRP details that in October 2000 thirteen permanent subsidence monitoring control points were established and that West Ridge resources would continue to conduct annual surveys in the fall of each year to monitor the surface effects of subsidence. The Permittee will submit a subsidence data and contoured map or map detailing the location of the various monitoring points for reference to meet the state annual commitments outlined within the MRP. (CP)

Title: Raptor Survey

Objective: Locations within the permit area that contain potential raptor nesting habitat will be surveyed in the field within one year of any proposed mining activity that could result in subsidence. Should any nests be found, West Ridge Resources, Inc. would consult with the Division (DOGM), the Division of Wildlife Resources and the US Fish and Wildlife Service.

Frequency: One year prior to subsidence.

Status: Ongoing

Reports: Annual report

Citation: Chapter 3, Page 3-8 & 3-9

Operator Comments

Raptor Surveys were completed in May, 2015 by EIS, and the report is included within the CONFIDENTIAL file.

Reviewer Comments

☒ Met Requirements

☐ Did Not Meet Requirements

4/22/16, LR: Raptor surveys were performed and the report was submitted as required. Two active Golden Eagle nests were located and successfully hatched chicks.

FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

Title: RECLAMATION MONITORING

Objective: Visually assess the revegetation success.

Frequency: Quarterly for the first three years and annually in June of each year thereafter

Status: Implement at reclamation

Reports: Annual Report

Citation: MRP, Volume 1, Chapter 3, page 3-16, paragraph 2

Title: MEXICAN SPOTTED OWL SURVEY

Objective: Conduct appropriate surveys for Mexican spotted owls on the lease tract areas with 40 percent or greater slopes, cliff habitat areas, riparian habitats, and mixed conifer forest habitats, prior to any future surface disturbing activity and/or any mining activity with the potential to interrupt surface spring flows. Inventory work must be conducted by parties approved and permitted for such survey work by the Fish and Wildlife Service and qualified in accordance with R645-301-132. Surveys must follow current protocol established by Fish and wildlife service.

Frequency: As needed

Status: ongoing

Reports: Annual

Citation: Permit condition attachment A, special condition #3.

Title: SOIL SAMPLING OF FINAL GRADED FILL AT CATCHMENTS A, C AND E

Objective: At final reclamation, the reclaimed surface soils of the catchments will be tested for pH, EC and SAR to allow for the evaluation of the salinity and the need for a revision or addition to the final seed mix to enhance germination and establishment.

Frequency: Once after final grading

Status: Future commitment

Reports: Provide information to the Division

Citation: MRP, Volume 2, Appendix 5-15, Attachment 9, page 14

OPERATOR COMMENTS (OPTIONAL)**REVIEWER COMMENTS**

REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

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Reviewer Comments

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MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mine Map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments ☐ Met Requirements ☒ Did Not Meet Requirements

The MRP details that a photogrammetric subsidence readings will be contoured into a map to depict the net change in elevation of the area within the Permit Area. The MRP details that in October 2000 thirteen permanent subsidence monitoring control points were established and that West Ridge resources would continue to conduct annual surveys in the fall of each year to monitor the surface effects of subsidence. The Permittee will submit a subsidence data and contoured map or map detailing the location of the various monitoring points for reference to meet the state annual commitments outlined within the MRP. (CP)

The Permittee included a mine map that is not legible. The Permittee will include a mine map with the approximate dates associated with panels to be mined. Planned mining operations are shown on the supplied mine map but lack any timing projection information and clear labels. The mine map does not meet the Division's annual requirements to show at least five years of projected mining annually. (CP)